



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
[www.uspto.gov](http://www.uspto.gov)

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/857,495	06/28/2001	Shinichi Yamada	057250903	5364
22852	7590	02/18/2010		
FINNEGAN, HENDERSON, FARABOW, GARRETT & DUNNER LLP 901 NEW YORK AVENUE, NW WASHINGTON, DC 20001-4413			EXAMINER YU, GINA C	
			ART UNIT	PAPER NUMBER
			1611	
			MAIL DATE	DELIVERY MODE
			02/18/2010 PAPER	

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

# Office Action Summary

**Application No.**

09/857,495

**Applicant(s)**

YAMADA ET AL.

**Examiner**

GINA C. YU

**Art Unit**

1611

**-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --**  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 16 November 2009.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 19-60,62-68,70-78 and 80-82 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 19-60,62-68,70-78 and 80-82 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-85/86)  
Paper No(s)/Mail Date \_\_\_\_\_
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: \_\_\_\_\_

### **DETAILED ACTION**

Receipt is acknowledged of amendment filed on November 16, 2009. Claims 19-60, 62-68, 70-78, 80-82 are pending.

The previous claim rejection made under 35 U.S.C. § 103 (a) over Lambers et al. (US 5693677) in view of Oblong et al. (US 5939082) and Young et al. (Fluid Mechanics, 2<sup>nd</sup> ed., John Wiley & sons, p. 11-13), indicated in the Office action dated August 14, 2009, has been withdrawn in view of the claim amendment made by applicant.

The claim rejection made over Bergmann (US 6110450) in view of Flick (Cosmetic and Toiletry Formulations, 1995) and von Mallek (US 5888489 A), as indicated in the same Office action, has been modified to address the claim amendment without changes in the grounds of rejection.

The claim rejection made over Bergmann, Flick and von Mallek, and further in view of Maubru (US 6312674 B1) has been modified to address the claim amendment without changes in the grounds of rejection.

The claim rejection made over Bergmann, Flick, von Mallek and Maubru, and further in view of Dubief et al. (US 6120757) has been modified to address the claim amendment without changes in the grounds of rejection.

The claim rejection made over Bergmann, Flick, von Mallek, Maubru and Dubief, and further in view of Ochiai et al. (US 5587155) has been modified to address the claim amendment without changes in the grounds of rejection.

***Claim Objections***

Claim 30 is objected to under 37 CFR 1.75(c), as being of improper dependent form for failing to further limit the subject matter of a previous claim. Applicant is required to cancel the claim(s), or amend the claim(s) to place the claim(s) in proper dependent form, or rewrite the claim(s) in independent form.

The Markush group of at least one liquid fatty alcohol of instant claim 30 is already recited in its base claim, claim 1.

***Claim Rejections - 35 USC § 103***

The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

**Claims 19, 20, 27-30, 32, 33, 52-54, 56-58, 64-66, 72-76, and 82 are rejected under 35 U.S.C. 103(a) as being unpatentable over Bergmann (US 6110450) in view of Flick (Cosmetic and Toiletry Formulations, 1995) and von Mallek (US 5888489 A).**

The broadest claim in the present application is claim 19, which is directed to liquid composition comprising at least one ceramide, at least one liquid fatty alcohol, and at least one cationic surfactant in a cosmetically acceptable medium, wherein the at least one fatty alcohol contains "no more than one hydroxyl group", and wherein the composition has a viscosity of less than or equal to 1000 cPs. Claim 19 also limits the at least one fatty alcohol to be present in an amount ranging from 1.5-10 % by weight of the composition. The same claim further requires the at least one fatty alcohol to be selected from the Markush group recited in lines 9-11. While the claim requires at least

one liquid fatty alcohol with only one hydroxyl group in the composition, examiner construes the claim in such a way that it does not exclude the presence of liquid fatty alcohols with more than one hydroxyl groups. See MPEP § 2111.03; In re Grasselli, 713 F.2d 731, 218 USPQ 769 (Fed. Cir. 1983). The present specification does not support exclusion of diols or triols from the claimed composition.

Bergmann teaches a hair treatment and protection composition comprising at least one ceramide and/or glycosceramide in a cosmetically acceptable medium. See abstract. The reference teaches using 0.005-5 % and more preferably 0.01- 3 % by weight of ceramides and/or glycosceramides based on the weight of the composition. See col. 5, lines 44 – 48. Cationic surfactants are taught in col. 6, lines 27-34. Example 2 shows an aqueous formulation comprising oleoyldihydrosphingosine, cationic surfactants (components 1 and 4), and additives. See instant claims 57 and 58. The reference teaches the prior art products take the form of emulsions, dispersions, or solutions, in the form of fluid, spray or thickened liquid, while illustrating shampoo and conditioner products, thus suggesting obviousness in variation of the forms of the prior art. See col. 7, lines 27 – 33; instant claim 56. The methods for treating and protecting hair in instant claims 64, 65, 74, and 75 are obvious uses of the prior art hair care compositions.

Although Bergmann teaches generally teaches using fatty alcohols as a hair conditioning agents, as well as emollients, the reference does not disclose in sufficient specificity a liquid fatty alcohol with no more than one hydroxyl group. See col. 6, lines 50- 63.

Also, while Bergmann teaches the final product may be in the form of liquid, but does not specifically mention the viscosity of hair liquid composition.

Flick teaches a hair liquid formulation having a viscosity of 6 cps. See p. 65, Hair Liquid. The formulation contains 1 % of 2-hexyldecyl alcohol, which is a liquid branched fatty alcohol with one OH group. See instant claim 33. Varying the weight amount of the fatty alcohol to find an optimum weight range would have been within the skill of the art. See instant claim 34.

Although Flick does not expressly disclose the utility of 2-hexyldecyl alcohol, von Mallek teaches this fatty alcohol is an emollient well known in hair care art at the time of the present invention. Von Mallek teaches conditioning shampoo compositions that employ as an emollient component fatty alcohol or fatty alcohol derivatives. The reference also teaches the emollient fatty alcohols are used in an amount ranging from about 0.5 to about 2.0 % by weight of the composition. See instant claim 34. The reference teaches the particularly preferred are Geurbet alcohols such as 2-hexyl decanol, 2-octyl decanol, 2-hexyl dodecanol, and 2-octyl dodecanol, which are branched liquid fatty alcohols with one OH group. Since von Mallek teaches 2-hexyl decanol and 2-octyl dodecanol of instant claim 30 are art-recognized functional equivalents, substituting one emollient for the other to make a similar hair care product would have been an obvious choice to a skilled artisan.

It would have been also obvious to the same skilled artisan to incorporate to the Bergmann hair care formulation a liquid fatty alcohol having one hydroxyl group such as 2-hexyl decanol as motivated by Flick and von Mallek because 1) Bergmann generally

suggests using fatty alcohol as hair conditioning agent and adding emollients; 2) Flick exemplifies a specific hair treatment liquid product which utilizes 2-hexyl decanol; and 3) von Mallek teaches the fatty alcohol of the Flick formulation is a well known hair emollient. Since Bergmann teaches to make fluid or liquid compositions comprising fatty alcohols and ceramide and Flick teaches a hair liquid product having a viscosity of 6 cts, by combining the teachings of the references the skilled artisan would have had a reasonable expectation of successfully producing an emollient liquid hair treatment/protection composition that has a suitable viscosity for application to the hair. Flick establishes that the use of the instant viscosity is known in the hair care art.

**Claims 21-26, 34, 59, 60, 67, 68, and 77-78 are rejected under 35 U.S.C. 103(a) as being unpatentable over Bergmann, Flick, and von Mallek as applied to claims 19, 20, 27-30, 32, 33, 52-54, 56-58, 64-66, 72-76, and 82 as above, and further in view of Maubru (US 6312674 B1).**

Bergmann and Flick fail to teach the specific ceramides of instant claims.

Maubru teaches oxidizing composition for bleaching or permanent reshaping hair, wherein the composition comprises ceramides disclosed in col. 3, line 21 – col. 16, line 13 in order to limit or prevent “deterioration in the mechanical properties of the hair”, particularly breaking of the hair and to obtain beautiful curls that withstand blow-drying and have good hold”. See col. 1, line 38 – col. 2, line 10. The reference specifically teaches bis(N-hydroxyethyl-N-cetyl)malonamide and 2-N-oleoylaminoctadecane-1,3-diol. See col. 5, lines 1 – 16. See instant claims 25-29. It is noted that oxidizing composition is used in “fixing step” in the permanent waving/straightening process. See

col. 1, lines 1-29. Adding cationic polymers as a cosmetic additive is also suggested. See col. 5, lines 54 – 58; instant claim 19, 57, 64, and 74. The reference further teaches that the invention may contain other additives that are “known for their use in oxidizing compositions for bleaching or permanent reshaping of the hair”. The claimed process of treating is necessarily practiced when the composition is used according to the teaching in the prior art. Since the reference teaches that the composition may be in the form of lotion which may or may not be thickened, a low viscosity composition is also envisioned by Maubru. See col. 5, lines 44 – 45.

It would have been obvious to one of ordinary skill in the art at the time the invention was made to have modified the compositions of the combined references by substituting the ceramides of Bergmann with the ceramides of Bergmann, as motivated by the latter, because 1) both Bergman and Maubru teach using ceramides in hair protecting compositions; and 2) Maubru teaches that the specific ceramides therein limits and prevents breaking of hair and damage due to blow-drying, and produces beautiful curls. The skilled artisan would have been motivated to combine the references in expectation of successfully producing a hair care composition which protects the hair from damages of chemical treatment.

**Claims 35-51, 62, 63, 70, 71, 80, and 81 are rejected under 35 U.S.C. 103(a) as being unpatentable over Bergmann, Flick, von Mallek and Maubru as applied to claims 19, 20, 27-30, 32, 33, 52-54, 56-58, 64-66, 72-76, and 82 above, and further in view of Dubief et al. (US 6120757) (“Dubief”).**



The combined references fail to teach the specific cationic surfactants of instant claims.

Dubief teaches a hair protection composition comprising quaternary ammonium surfactants. See col. 4, line 51 – col. 6, line 2; see instant claims 35-51. Adding ceramides is taught in col. 6, line 39. The reference discloses that the invention can be used in permanent waving, straightening products, for washing or rinsing, or as a leave-in product. See col. 6, lines 50 – 58. Since the reference teaches that the composition may be in the form of aqueous dispersion and spray, making a light viscosity composition comprising the said quaternary ammonium surfactants is suggested by the prior art. See col. 6, lines 24-28.

It would have been obvious to a skilled artisan to modify the hair liquid composition of the combined references by substituting the cationic surfactant of Bergmann with those of Dubief, as motivated by the latter, because 1) both Bergmann and Dubief are directed to hair protection compositions comprising conditioning agents, 2) Bergmann teaches using cationic surfactants such as quaternary ammonium salts; and 3) Dubief teaches the specific types of quaternary ammonium salts which are useful for hair conditioning purposes.

**Claims 35-51, 55, 62, 63, 70, 71, 80, and 81 are rejected under 35 U.S.C. 103(a) as being unpatentable over Bergmann, Flick, and von Mallek as applied to claims 19, 20, 27-30, 32, 33, 52-54, 56-58, 64-66, 72-76, and 82 above, and further in view of Ochiai et al. (US 5587155) (“Ochiai”).**

Bergmann fails to teach 18-methyleicosanoic acid and the quaternary ammonium cationic surfactants of instant claims.

Ochiai teaches hair-conditioning composition comprising 18-methyleicosanoic acid. See Table 3; Example 7; col. 1, line 54 – col. 2, line 54. The reference teaches that the fatty acid prevents hair damage and adds resilience to the hair, and renders moisturizing and hair conditioning effects. See col. 7, lines 36 – col. 8, line 60 for the application of the invention. Quaternary ammonium salts are taught in col. 3, line 36 – col. 5, line 51.

It would have been obvious to one of ordinary skill in the art at the time the invention was made to have modified the composition of the Bergmann references by adding a well known hair conditioning ingredient such as 18-methyleicosanoic acid as motivated by Ochiai because of the expectation of successfully producing a hair care products with hair protection, moisturizing, and conditioning effects.

### ***Response to Arguments***

Applicant's arguments filed on November 16<sup>th</sup> 2009 have been fully considered but they are not persuasive.

Applicant's remarks regarding the previous obviousness rejection made under Lambers, Oblong, and Young are moot as the rejection has been withdrawn in view of the claim amendment made by applicant.

Regarding the rejection made in view of Bergmann, Flick and von Mallek, applicant asserts the viscosity of the Bergmann invention ranges "4,000-7,000 cps", citing Example 1 containing Carbopol 980, a suspending agent and gelling polymer.

However, applicant's remarks fail to take into consideration that the same reference also teaches to make variations such as hair care fluid and spray products. Bergmann does not teach fluid and spray products have the same high viscosity of Example 1. As discussed in the rejection, Flick provides a measured viscosity value of a fluid hair care product. As seen in Bergmann and Flick, formulation of a low viscosity hair composition comprising a ceramide and a liquid fatty alcohol is not viewed novel or nonobvious subject matter.

Applicant also asserts the Office has not produced a rationale for a skilled artisan to combine Bergmann, Flick, and von Mallek. On the contrary, examiner believes the conclusion paragraph of the obviousness rejection has sufficiently indicated the motivation to do so. Applicant has not addressed why the three references on hair care products available at the time of the present invention are not combinable. It also appears that applicant has not considered the specific disclosure in von Mallek on the utility of applicant's liquid fatty alcohols as an emollient and hair conditioning agent as well as the suitable weight amount in a hair care composition. With such explicit teachings on how to use a hair conditioning agent, what would have deterred a skilled artisan from using the beneficial hair care ingredient?

Applicant asserts the ground of rejection for each remaining rejection was rendered moot by the amendments to the independent claims. However, the incorporated subject matters to those claims (i.e., the specific liquid fatty alcohols used and their weight amount in the claimed composition) already had been addressed in the

previous rejection made in view of Bergmann, Flick and von Mallek. Therefore, all of the grounds of the rejections are maintained.

***Conclusion***

No claim is allowed.

**THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to GINA C. YU whose telephone number is (571)272-8605. The examiner can normally be reached on Monday through Thursday, from 8:00AM until 6:00 PM..

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Sharmila Landau can be reached on 571-272-0614. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/GINA C. YU/  
Primary Examiner, Art Unit 1611